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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,359	09/28/2001	Takeshi Tanaka	503.33904RC1	3246

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EXAMINER	
BRIER, JEFFERY A	

ART UNIT	PAPER NUMBER
2672	

DATE MAILED: 10/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/964,359	TANAKA ET AL.	
	Examiner	Art Unit	
	Jeffery A. Brier	2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 September 2001* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 September 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. *08/507,990* .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *3* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Priority

1. This Reissue application is a continuation of U.S. application no. 09/644,979, now abandoned, which is a Reissue application of U.S. Patent No. 5,798,744.

2. The claims in this Reissue application are the same claims rejected in the parent application (09/644,979) in the office action mailed 03/28/2001 as paper no. 5

3. The cross reference to related applications needs to be updated to reflect the status of the parent reissue application (09/644,979), U.S. application no. 09/644,979 is now abandoned.

4. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 08/507,990, filed on 07/27/1995.

Response to New Claims

5. Applicant should have made clear in his remarks the changes made to the claims and where support may be found in the patent for those changes. Note MPEP 1411 and 1453.

MPEP 1411 states on page 1400-11 first column third paragraph:

> The presentation of the insertions or deletions as part of the original reissue specification is an amendment under 37 CFR 1.173(b). An amendment of the reissue application made at the time of filing of the reissue application must be made in accordance with 37 CFR 1.173(b)-(e) and (g); see MPEP § 1453. Thus, as required by 37 CFR 1.173(c), an amendment of the claims made at the time of filing of a reissue application must include a separate paper setting forth the status of all claims (i.e., pending or canceled), and an explanation of the support in the disclosure of the patent for the changes made to the claims.
> Eighth Edition (E8) 08/2001

MPEP 1453 states on page 1400-58 second column:

Presentation of New Claims

Example (5)
Each new claim (i.e., a claim not found in the patent, that is newly presented in the reissue application) should be presented with underlining throughout the claim, e.g.,

Add claim 7 as follows:

Claim 7. The apparatus of claim 5 further comprising electrodes attaching to said opposite faces of the first and second piezoelectric elements.

Even though original claims may have been canceled, the numbering of the original claims does not change. Accordingly, any added claims are numbered beginning with the number next higher than the number of claims in the original patent. If new claims have been added to the reissue application which are later canceled prior to issuance of the reissue patent, the examiner will renumber any remaining new claims in numerical order to follow the number of claims in the original patent.

Amendment of New Claims

An amendment of a "new claim" (i.e., a claim not found in the patent, that was previously presented in the reissue application) must be done by presenting the amended "new claim" containing the amendatory material, and completely underlining the claim. The presentation cannot contain any bracketing or other indication of what was in the previous version of the claim. This is because all changes in the reissue are made vis-à-vis the original patent, and not in comparison to the prior amendment. Although the presentation of the amended claim does not contain any indication of what is changed from the previous version of the claim, applicant must point out what is changed in the "Remarks" portion of the amendment. Also, per 37 CFR 1.173(c), each change made in the claim must be accompanied by an explanation of the support in the disclosure of the patent for the change.
Eighth Edition (E8) 08/2001

6. New claim 41 should depend upon claim 40 not claim 37. Claim 37 depends upon claim 36 and claim 36 claims the same limitations that claim 41 claims. Please correct.

Response to Amendment

7. The Preliminary Amendment filed 09/28/2001 has been entered. This amendment amended the specification by adding a cross reference to related applications. No other amendments have been received.

Consent of Assignee

8. This application is objected to under 37 CFR 1.172(a) as lacking the written consent of all assignees owning an undivided interest in the patent. The consent of the assignee must be in compliance with 37 CFR 1.172. See MPEP § 1410.01.

A proper assent of the assignee in compliance with 37 CFR 1.172 and 3.73 is required in reply to this Office action.

Right of Assignee to take action

9. The attorney of record signed the form titled "REISSUE APPLICATION BY THE ASSIGNEE, OFFER TO SURRENDER PATENT". His right to sign for the assignee has not been established by the assignee. It should be noted the reissue declaration is titled "REISSUE APPLICATION DECLARATION BY THE INVENTOR". Due to the attorney signing the form titled "REISSUE APPLICATION BY THE ASSIGNEE, OFFER TO SURRENDER PATENT" this application is objected to under 37 CFR 1.172(a) as the assignee has not established its ownership interest in the patent for which reissue is being requested. An assignee must establish its ownership interest in order to support

the consent to a reissue application required by 37 CFR 1.172(a). The assignee's ownership interest is established by:

(a) filing in the reissue application evidence of a chain of title from the original owner to the assignee, or

(b) specifying in the record of the reissue application where such evidence is recorded in the Office (e.g., reel and frame number, etc.).

The submission with respect to (a) and (b) to establish ownership must be signed by a party authorized to act on behalf of the assignee. See MPEP § 1410.01.

An appropriate paper satisfying the requirements of 37 CFR 3.73 must be submitted in reply to this Office action.

37 CFR 3.73 states:

> **§ 3.73 Establishing right of assignee to take action.**
>
> (a) The inventor is presumed to be the owner of a patent application, and any patent that may issue therefrom, unless there is an assignment. The original applicant is presumed to be the owner of a trademark application or registration, unless there is an assignment.
>
> (b)
>
> (1) In order to request or take action in a patent or trademark matter, the assignee must establish its ownership of the patent or trademark property of paragraph (a) of this section to the satisfaction of the Commissioner. The establishment of ownership by the assignee may be combined with the paper that requests or takes the action. Ownership is established by submitting to the Office a signed statement identifying the assignee, accompanied by either:
>
> (i) Documentary evidence of a chain of title from the original owner to the assignee (e.g., copy of an executed assignment). The documents submitted to establish ownership may be required to be recorded pursuant to §3.11 in the assignment records of the Office as a

condition to permitting the assignee to take action in a matter pending before the Office; or

(ii) A statement specifying where documentary evidence of a chain of title from the original owner to the assignee is recorded in the assignment records of the Office
(e.g., reel and frame number).

(2) The submission establishing ownership must show that the person signing the submission is a person authorized to act on behalf of the assignee by:

(i) Including a statement that the person signing the submission is authorized to act on behalf of the assignee; or
(ii) Being signed by a person having apparent authority to sign on behalf of the assignee, e.g., an officer of the assignee.

(c) For patent matters only:

(1) Establishment of ownership by the assignee must be submitted prior to, or at the same time as, the paper requesting or taking action is submitted.

(2) If the submission under this section is by an assignee of less than the entire right, title and interest, such assignee must indicate the extent (by percentage) of its ownership interest, or the Office may refuse to accept the submission as an establishment of ownership.

[Added, 57 FR 29634, July 6, 1992, effective Sept. 4, 1992; para. (b) revised, 62 FR 53131, Oct. 10, 1997, effective Dec. 1, 1997; revised, 65 FR 54604, Sept. 8, 2000,
effective Nov. 7, 2000]

Original Patent

10. The original patent, or an affidavit or declaration as to loss or inaccessibility of the original patent, must be received before this reissue application can be allowed. See 37 CFR 1.178. The offer to surrender the original patent is noted. 37 CFR 1.178 states: **§ 1.178 Original patent; continuing duty of applicant.**

> (a) The application for a reissue should be accompanied by either an offer to surrender the original patent, or the original patent itself, or if the original is lost or inaccessible, by a statement to that effect. The application may be accepted for examination in the absence of the original patent or the statement, but one or the other must be supplied before the application is allowed. If a reissue application is refused, the original patent, if surrendered, will be returned to applicant upon request.
>
> (b) In any reissue application before the Office, the applicant must call to the attention of the Office any prior or concurrent proceedings in which the patent (for which reissue is requested) is or was involved, such as interferences, reissues, reexaminations, or litigations and the results of such proceedings (see also § 1.173(a)(1)).
>
> [24 FR 10332, Dec. 22, 1959; 34 FR 18857, Nov. 26, 1969; revised, 65 FR 54604, Sept. 8, 2000, effective Nov. 7, 2000]

Drawings

12. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed. Applicant has filed copies of the drawings as they appear in the patent with the heading (U.S. Patent ... 5,798,744) being objectionable by the draftsman and rendering

these drawings informal. The heading "U.S. Patent ... 5,798,744" is an extraneous marking. MPEP 1413 states:

> **1413 Drawings**
>
> 37 CFR 1.173 Reissue specification, drawings, and amendments.
>
> *****
>
> (2) Drawings. Applicant must submit a clean copy of each drawing sheet of the printed patent at the time the reissue application is filed. If such copy complies with §
> 1.84, no further drawings will be required. Where a drawing of the reissue application is to include any changes relative to the patent being reissued, the changes to the
> drawing must be made in accordance with paragraph (b)(3) of this section. The Office will not transfer the drawings from the patent file to the reissue application.
>
> *****
>
> A clean copy (e.g., good quality photocopies free of any extraneous markings) of each drawing sheet of the printed patent must be supplied by the applicant at the time of filing of the reissue application. If the copies meet the requirements of 37 CFR 1.84, no further formal drawings will be required. New drawing sheets are not to be submitted, unless some change is made in the original patent drawings. Such changes must be made in accordance with 37 CFR 1.173(b)(3).
>
> The prior reissue practice of transferring drawings from the patent file has been eliminated, since clean photocopies of the printed patent drawings are acceptable for use in the printing of the reissue patent. Eighth Edition (E8) 08/2001

New Matter

13. Claims 24-45 are rejected under 35 U.S.C. 251 as being based upon new matter added to the patent for which reissue is sought. The added material which is not supported by the prior patent is as follows:

In claim 42 line 13 applicant claims "analog image signals". The original specification described image signals but it did not describe analog image signals.

In claims 25, 27, 34, 39, and 43 a semiconductor island annealed by laser irradiation is claimed and this was not described by the original specification.

In claim 26 a liquid driving source voltage is claimed and this was not described by the original specification.

In claim 24 the driver circuit is claimed to be separate from the pair of substrates. This was not described by the original specification.

In claim 26 the range of 3V to 5V was not described by the original specification. Column 4 lines 27-29 describes "by setting a dynamic range of the liquid crystal driving source voltage of the image signal driver at most at 5 V, preferably at most at 3 V." This does not describe a range of operation but two driving limits.

Claims 32, 38, and 42 claim "an image signal peripheral circuit having a switch matrix". The described image signal peripheral circuit 51, described on column 5 lines 48-52 and illustrated in figure 4, does not have a switch matrix. Switches 301 are switches for passing Vdd to the column electrodes. They do not form a switch matrix.

Claim Rejections - 35 USC § 112 - First Paragraph

14. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

15. Claims 24-45 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 42 line 13 applicant claims "analog image signals". The original specification described image signals but it did not describe analog image signals.

In claims 25, 27, 34, 39, and 43 a semiconductor island annealed by laser irradiation is claimed and this was not described by the original specification.

In claim 26 a liquid driving source voltage is claimed and this was not described by the original specification.

In claim 24 the driver circuit is claimed to be separate from the pair of substrates. This was not described by the original specification.

In claim 26 the range of 3V to 5V was not described by the original specification. Column 4 lines 27-29 describes "by setting a dynamic range of the liquid crystal driving source voltage of the image signal driver at most at 5 V, preferably at most at 3 V." This does not describe a range of operation but two driving limits.

Claims 32, 38, and 42 claim "an image signal peripheral circuit having a switch matrix". The described image signal peripheral circuit 51, described on column 5 lines 48-52 and illustrated in figure 4, does not have a switch matrix. Switches 301 are switches for passing Vdd to the column electrodes. They do not form a switch matrix.

Claim Rejections - 35 USC § 112 - Second Paragraph

16. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

17. Claims 34-37 and 41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 34 is indefinite because at line 3 "said scanning signal" lacks antecedent basis. It appears that text is missing after "said scanning signal".

Recapture

18. Claims 23-45 are rejected under 35 U.S.C. 251 as being an improper recapture of broadened claimed subject matter surrendered in the application for the patent upon which the present reissue is based. See *Hester Industries, Inc.* v. *Stein, Inc.*, 142 F.3d 1472, 46 USPQ2d 1641 (Fed. Cir. 1998); *In re Clement,* 131 F.3d 1464, 45 USPQ2d 1161 (Fed. Cir. 1997); *Ball Corp.* v. *United States*, 729 F.2d 1429, 1436, 221 USPQ 289, 295 (Fed. Cir. 1984). A broadening aspect is present in the reissue which was not present in the application for patent. The record of the application for the patent shows

that the broadening aspect (in the reissue) relates to subject matter that applicant previously surrendered during the prosecution of the application. Accordingly, the narrow scope of the claims in the patent was not an error within the meaning of 35 U.S.C. 251, and the broader scope surrendered in the application for the patent cannot be recaptured by the filing of the present reissue application.

19. Claims 23-31:

Claim 23 differs from patented claim 1 in a matter germane to the allowance of patented claim 1 as follows: applicant replaced lines 8-20 of patented claim 1 with lines 9-18 of pending claim 23 which does not have the limitations argued by applicant on page 12 second paragraph to page 13 last paragraph of the patent application's 11/7/97 amendment.

Claim 23 differs from patented claim 22 in a matter germane to the allowance of patented claim 22 as follows: applicant replaced lines 7-23 of patented claim 22 with lines 9-18 of pending claim 23 which does not have the limitations argued by applicant as being allowable on page 6 of the patent application's 11/7/97 amendment. On page 6 applicant wrote "Thus, applicants submit that claim 24 corresponding to claim 19 written in independent form should now be in condition for allowance". In the original patent application's first office action the examiner indicated that claim 19/2/1 would be allowable in rewritten in independent form. Claim 24 has all of the limitations of claim 19/2/1. Patented claim 22 has the limitation of claims 2 and 19 at lines 7-23. Thus, the reason for allowing patented claim 22 is not present in pending claim 23.

Claim 24 fails to claim a subject matter to the allowance of patented claim 1 for the reasons given for parent claim 23 and because it claims that the "driver circuit is separate from said pair of substrates". Patented claims 1 and 22 claimed the driver circuit on at least one substrate.

20. Claims 32-37 and 41:

Claim 32 differs from patented claim 1 in a matter germane to the allowance of patented claim 1 as follows: applicant replaced lines 8-20 of patented claim 1 with lines 9-13 of pending claim 32 which does not have the limitations argued by applicant on page 12 second paragraph to page 13 last paragraph of the patent application's 11/7/97 amendment.

Claim 32 differs from patented claim 22 in a matter germane to the allowance of patented claim 22 as follows: applicant replaced lines 7-23 of patented claim 22 with lines 9-13 of pending claim 32 which does not have the limitations argued by applicant as being allowable on page 6 of the patent application's 11/7/97 amendment. On page 6 applicant wrote "Thus, applicants submit that claim 24 corresponding to claim 19 written in independent form should now be in condition for allowance". In the original patent application's first office action the examiner indicated that claim 19/2/1 would be allowable in rewritten in independent form. Claim 24 has all of the limitations of claim 19/2/1. Patented claim 22 has the limitation of claims 2 and 19 at lines 7-23. Thus, the reason for allowing patented claim 22 is not present in pending claim 32.

Claims 38-40:

Claim 38 differs from patented claim 1 in a matter germane to the allowance of patented claim 1 as follows: applicant replaced lines 8-20 of patented claim 1 with lines 9-13 of pending claim 38 which does not have the limitations argued by applicant on page 12 second paragraph to page 13 last paragraph of the patent application's 11/7/97 amendment.

Claim 38 differs from patented claim 22 in a matter germane to the allowance of patented claim 22 as follows: applicant replaced lines 7-23 of patented claim 22 with lines 9-13 of pending claim 38 which does not have the limitations argued by applicant as being allowable on page 6 of the patent application's 11/7/97 amendment. On page 6 applicant wrote "Thus, applicants submit that claim 24 corresponding to claim 19 written in independent form should now be in condition for allowance". In the original patent application's first office action the examiner indicated that claim 19/2/1 would be allowable in rewritten in independent form. Claim 24 has all of the limitations of claim 19/2/1. Patented claim 22 has the limitation of claims 2 and 19 at lines 7-23. Thus, the reason for allowing patented claim 22 is not present in pending claim 38.

Claims 42-45:

Claim 42 differs from patented claim 1 in a matter germane to the allowance of patented claim 1 as follows: applicant replaced lines 8-20 of patented claim 1 with lines 9-13 of pending claim 42 which does not have the limitations argued by applicant on page 12 second paragraph to page 13 last paragraph of the patent application's 11/7/97 amendment.

Claim 42 differs from patented claim 22 in a matter germane to the allowance of patented claim 22 as follows: applicant replaced lines 7-23 of patented claim 22 with lines 9-13 of pending claim 42 which does not have the limitations argued by applicant as being allowable on page 6 of the patent application's 11/7/97 amendment. On page 6 applicant wrote "Thus, applicants submit that claim 24 corresponding to claim 19 written in independent form should now be in condition for allowance". In the original patent application's first office action the examiner indicated that claim 19/2/1 would be allowable in rewritten in independent form. Claim 24 has all of the limitations of claim 19/2/1. Patented claim 22 has the limitation of claims 2 and 19 at lines 7-23. Thus, the reason for allowing patented claim 22 is not present in pending claim 42.

Reissue Declaration

21. The reissue oath/declaration filed on 09/28/2001 in this application is defective because it fails to contain a statement that all errors which are being corrected in the reissue application up to the time of filing of the oath/declaration arose without any deceptive intention on the part of the applicant. See 37 CFR 1.175 and MPEP § 1414. Applicant failed to include the phrase "up to the time of filing of the oath/declaration". MPEP 1414 on page 1400-24 first column states:

> III. A STATEMENT THAT ALL ERRORS WHICH ARE BEING CORRECTED IN THE REISSUE APPLICATION UP TO THE TIME OF FILING OF THE OATH/DECLARATION AROSE WITHOUT ANY DECEPTIVE INTENTION ON THE PART OF THE APPLICANT.
>
> In order to satisfy this requirement, the following statement may be included in an oath or declaration:
>
> "All errors which are being corrected in the present reissue application up to the time of filing of this declaration arose without any deceptive intention on the part of the applicant."
>
> Nothing more is required. The examiner will determine only whether the reissue oath/declaration contains the required averment; the examiner will not make any comment as to whether it appears that there was in fact deceptive intention (see MPEP § 2022.05).

22. Claims 1-45 are rejected as being based upon a defective reissue declaration under 35 U.S.C. 251 as set forth above. See 37 CFR 1.175.

The nature of the defect(s) in the declaration is set forth in the discussion above in this Office action.

Claim Rejections - 35 USC § 102

23. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

24. Claims 23, 24, 26, 32, 33, 38, and 42 are rejected under 35 U.S.C. 102(b) as being anticipated by Morozumi U.S. Patent No. 4,582,395. Morozumi teaches display area transistors and peripheral circuit transistors. Inherently Morozumi teaches a driving circuit on a substrate external to the display substrate.

The following side by side analysis of claim 23 and Morozumi illustrates how Morozumi anticipates applicant's claims.

Pending claim 23	Morozumi U.S. Patent No. 4,582,395
23. A liquid crystal display apparatus comprising:	See the abstract at line 1.
a pair of substrates, at least one of which is transparent;	Transparent substrate 31, column 5 line 53 and inherently an upper substrate such as glass is used to contain the liquid crystal material.
a liquid crystal layer formed by sandwiching a liquid crystal composition between said pair of substrates;	The liquid crystal material is sandwiched between two electodes29 and the electrode located on the upper substrate connected to Vc. See figures 3a and 5.
a display region having a plurality of first semiconductor elements which are arranged in a matrix on one substrate of said pair of substrates;	See abstract line 1 and figure 5.

at least one peripheral circuit having a plurality of second semiconductor elements arranged at a periphery of said display region, said at least one peripheral circuit being formed on said one substrate of said pair of substrates and at least one part of said peripheral circuit being arranged in a peripheral circuit region which is held between said pair of substrates; and	Column 2 lines 29-36. At least the lines of Morozumi's peripheral circuit is between the substrates.
at least one driver circuit which is electrically connected to said at least one peripheral circuit for driving said at least one peripheral circuit.	Inherently Morozumi teaches a driving circuit on a substrate external to the display substrate.

25. Claims 23, 24, 26, 32, 33, 38, and 42 are rejected under 35 U.S.C. 102(b) as being anticipated by Aoki et al. U.S. Patent No. 4,644,338. Aoki teaches display area transistors and peripheral circuit transistors. Inherently Aoki teaches a driving circuit on a substrate external to the display substrate.

The following side by side analysis of claim 23 and Aoki illustrates how Aoki anticipates applicant's claims.

Pending claim 23	Aoki et al. U.S. Patent No. 4,644,338
23. A liquid crystal display apparatus comprising:	Figure 6 and column 5 lines 4-54.
a pair of substrates, at least one of which is transparent;	Lower substrate 13 is glass, column 5 line 59 and upper (display side) substrate 12 has a transparent conductive electrode 16, column 5 lines 61-61 is used to contain the liquid crystal material. Also note column 4 lines 65-68.
a liquid crystal layer formed by sandwiching a liquid crystal composition between said pair of substrates;	The liquid crystal material 14 is sandwiched between the two substrates as seen in figure 9.

a display region having a plurality of first semiconductor elements which are arranged in a matrix on one substrate of said pair of substrates;	Figure 10 and column 6 lines 12-60.
at least one peripheral circuit having a plurality of second semiconductor elements arranged at a periphery of said display region, said at least one peripheral circuit being formed on said one substrate of said pair of substrates and at least one part of said peripheral circuit being arranged in a peripheral circuit region which is held between said pair of substrates; and	Figures 5 and 10, shifter register 29, latch circuit 26, gate line sel/Drive 32, column lines 8 and row lines 9. At least lines 8 and 9 of Aoki's peripheral circuit is between the substrates.
at least one driver circuit which is electrically connected to said at least one peripheral circuit for driving said at least one peripheral circuit.	Inherently Aoki teaches a driving circuit on a substrate external to the display substrate.

26. Claims 23, 24, 26, 32, 33, 38, and 42 are rejected under 35 U.S.C. 102(e) as being anticipated by Mochizuki et al U.S. Patent No. 5,247,375. Mochizuki teaches display area transistors and peripheral circuit transistors. Inherently Mochizuki teaches a driving circuit on a substrate external to the display substrate.

The following side by side analysis of claim 23 and Mochizuki illustrates how Mochizuki anticipates applicant's claims.

Pending claim 23	Mochizuki et al U.S. Patent No. 5,247,375
23. A liquid crystal display apparatus comprising:	Figures 1A and 1B.
a pair of substrates, at least one of which is transparent;	Lower glass substrate 10A and upper glass substrate 10B. Also note column 5 lines 33-35.
a liquid crystal layer formed by sandwiching a liquid crystal composition between said pair of substrates;	The liquid crystal material 14 is sandwiched between the two substrates as seen in figure 9.

a display region having a plurality of first semiconductor elements which are arranged in a matrix on one substrate of said pair of substrates;	Figure 1B.
at least one peripheral circuit having a plurality of second semiconductor elements arranged at a periphery of said display region, said at least one peripheral circuit being formed on said one substrate of said pair of substrates and at least one part of said peripheral circuit being arranged in a peripheral circuit region which is held between said pair of substrates; and	Figure 1B illustrates data drive circuit area 19A and scan drive circuit 19B between both of the glass substrates.
at least one driver circuit which is electrically connected to said at least one peripheral circuit for driving said at least one peripheral circuit.	Inherently Mochizuki teaches a driving circuit on a substrate external to the display substrate for providing signals to the data drive circuit area 19A and scan drive circuit 19B.

27. Claims 23, 24, 26, 32, 33, 38, and 42 are rejected under 35 U.S.C. 102(e) as being anticipated by Kato et al U.S. Patent No. 5,589,406. Kato teaches display area transistors and peripheral circuit transistors. Inherently Kato teaches a driving circuit on a substrate external to the display substrate.

The following side by side analysis of claim 23 and Kato illustrates how Kato anticipates applicant's claims.

Pending claim 23	Kato et al U.S. Patent No. 5,589,406
23. A liquid crystal display apparatus comprising:	Figures 1A and 1B.
a pair of substrates, at least one of which is transparent;	At least one of glass substrate 11 and counter glass substrate 12 are transparent. Column 14 lines 45-54.
a liquid crystal layer formed by sandwiching a liquid crystal composition between said pair of substrates;	The liquid crystal material 14 is sandwiched between glass substrate 11 and counter glass substrate 12. Column 14 lines 45-54.

a display region having a plurality of first semiconductor elements which are arranged in a matrix on one substrate of said pair of substrates;	TFT display elements. Column 14 lines 47-49.
at least one peripheral circuit having a plurality of second semiconductor elements arranged at a periphery of said display region, said at least one peripheral circuit being formed on said one substrate of said pair of substrates and at least one part of said peripheral circuit being arranged in a peripheral circuit region which is held between said pair of substrates; and	Row driver circuits 7 are at the periphery of the display region and a part of the row driver circuit, the row lines, are between both substrates 11 and 12. Figure 14. Column 14 lines 45-54.
at least one driver circuit which is electrically connected to said at least one peripheral circuit for driving said at least one peripheral circuit.	At column 14 lines 55-57 Kato describes an additional circuit labeled a peripheral driver circuit inherently used to drive the row driver circuits.

28. Claims 23, 24, 26, 32, 33, 38, and 42 are rejected under 35 U.S.C. 102(b) as being anticipated by Misawa et al U.S. Patent No. 5,250,931. Misawa teaches display area transistors and peripheral circuit transistors. Inherently Misawa teaches a driving circuit on a substrate external to the display substrate.

The following side by side analysis of claim 23 and Misawa illustrates how Misawa anticipates applicant's claims.

Pending claim 23	Misawa et al U.S. Patent No. 5,250,931
23. A liquid crystal display apparatus comprising:	Column 4 lines 4-10.
a pair of substrates, at least one of which is transparent;	Figure 3B, transparent substrate 98 and substrate 86. Column 7 lines 5-8.
a liquid crystal layer formed by sandwiching a liquid crystal composition between said pair of substrates;	The liquid crystal material 96 is sandwiched between the two substrates as seen in figure 3B. Column 7 lines 5-8.
a display region having a plurality of first semiconductor elements which are arranged in a matrix on one substrate of said pair of substrates;	Figure 1B.

at least one peripheral circuit having a plurality of second semiconductor elements arranged at a periphery of said display region, said at least one peripheral circuit being formed on said one substrate of said pair of substrates and at least one part of said peripheral circuit being arranged in a peripheral circuit region which is held between said pair of substrates; and	Figure 1B illustrates data drive circuit area 19A and scan drive circuit 19B between both of the glass substrates.
at least one driver circuit which is electrically connected to said at least one peripheral circuit for driving said at least one peripheral circuit.	Inherently Misawa teaches a driving circuit on a substrate external to the display substrate for providing signals to the active matrix panel 10.

Claim Rejections - 35 USC § 103

29. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

30. Claims 32, 38, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto U.S. Patent No. 4,646,074. Hashimoto teaches placing the peripheral driving circuits along the long side of the liquid crystal display. Hashimoto fails to teach using an active matrix liquid crystal display. Active matrix liquid crystal displays use transistors in the display area of the display and use transistors in the peripheral circuits. Active matrix displays are well known as shown by the references cited in the 102 rejections of claim 1. Thus, it would have been obvious to one of ordinary skill in the art to place a driver circuit along the long side of an active matrix liquid crystal display.

31. This is a continuation of applicant's earlier Application No. 09/644,979. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

32. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffery A. Brier whose telephone number is (703) 305-4723. The examiner can normally be reached on M-F from 6:30 to 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi, can be reached at (703) 305-4713).

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Jeffery A Brier
Primary Examiner
Art Unit 2672